

Application No.: NOT YET ASSIGNED

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for machining a workpiece, comprising: ~~(1) by means of a rotating tool (2) provided with at least one cutting edge (3), in which method the machining operation is interrupted at predetermined time intervals, the tool (2) is moved away from the workpiece (1), and a wear measurement is subsequently carried out on the tool (2), characterized in that after the wear measurement the tool (2) is returned at least into the feed position assumed by it before the interruption and the machining operation is continued, and that subsequently within a period of time the tool is continuously fed for compensating the wear measured.~~

- (a) providing a rotating tool having at least one cutting edge;
- (b) interrupting, at a predetermined time interval, a machining operation utilizing the rotating tool;
- (c) performing a measurement on the rotating tool during said interruption to determine a wear measurement;
- (d) continuing the machining operation by returning the rotating tool into a feed position substantially identical to a feed position of the rotating tool prior to the interruption; and
- (e) feeding the tool into contact with a work piece in a manner to compensate for the wear measurement determined in accordance with step (c).

2. (Currently Amended) The method according to claim 1, ~~characterized in that the~~ wherein one of a speed of the rotating tool or and/or a period of time of [[the]] a continuous feed of the tool for compensating the wear measured is defined through the in relation to a machining path.

3. (Currently Amended) The method according to claim 1, ~~characterized in that the~~ wherein one of a speed of the rotating tool or and/or a period of time of [[the]] a continuous feed of the tool for compensating the wear measured is defined through [[the]] a machining time.

4. (Currently Amended) The method according to ~~any one of claims~~ claim 1 ~~[[ to 3]],~~ characterized in that the wherein one of a speed of the rotating tool or and/or a period of time of

Application No.: NOT YET ASSIGNED

~~[[the]] a continuous feed of the tool for compensating the wear measured~~ is defined through the wear measured.

5. (Currently Amended) The method according to ~~any one of claims claim 1~~ [[ to 4]], ~~characterized in that further comprising generating at least one of an error message and/or or a warning message~~ [[is]] transmitted if ~~[[the]] a continuous feed of the tool for compensating the wear measured measurement has not been~~ is not being completed [[yet]] by the ~~[[end]] expiration of the a predetermined time interval set~~ for carrying out ~~[[the]] a next wear measurement~~.

6. (Currently Amended) The method according to ~~any one of claims claim 1~~ [[ to 5]], ~~characterized in that wherein the wear measurement comprises measuring wear along~~ is measured along the whole ~~the entire~~ cutting edge ~~[[3]]~~ of the tool ~~[[2]]~~.

7. (Currently Amended) The method according to ~~any one of claims claim 1~~ [[ to 5]], ~~characterized in that the correction is further comprising compensating for the wear measured by performing corrections~~ carried out sectionwise for individual small sections along ~~[[the]] a cutting edge~~ ~~[[3]]~~ of the tool ~~[[2]]~~.

8. (Currently Amended) The method according to ~~any one of claims claim 1~~ [[ to 5]], ~~characterized in that wherein the wear is measured measurement comprises a measurement on an enveloping body formed during rotation of the tool~~ ~~[[2]]~~.

9. (Currently Amended) The method according to ~~any one of claims claim 1~~ [[ to 8]], ~~characterized in that wherein the tool~~ ~~[[2]]~~ is fed for wear correction in a direction ~~normal~~ ~~[[()]]~~ perpendicular ~~[[()]]~~ to ~~[[the]] a workpiece surface~~ ~~[[4]]~~.

10. (Currently Amended) The method according to claim 9, ~~characterized in that the feed normal to the workpiece surface (4)~~ wherein said method is carried out on the basis of ~~[[the]] an engagement point~~ ~~[[s]]~~ of the cutting edge of the tool ~~[[2]]~~ ~~which are as~~ predetermined by a machining program.

11. (Currently Amended) The method according to claim 9, ~~characterized in that the feed normal to the workpiece surface (4)~~ wherein said method is carried out ~~performed using on the basis of an online calculation of one or more~~ ~~[[the]] engagement points of the cutting edge of the tool~~

*Application No.: NOT YET ASSIGNED*

[[2]] said calculation being dependent ~~in dependence upon the amount of respective material removal removed from the workpeice.~~

12. (Currently Amended) The method according to ~~any one of claims~~ claim 1 [[ to 11]], ~~characterized in that the~~ wherein a predetermined time interval is determined on the basis of the ~~respectively current material removal of the~~ removed by a cutting edge [[3]] of the tool.

13. (Currently Amended) The method according to ~~any one of claims~~ claim 1 [[ to 12]], ~~characterized in that a further comprising changing the tool change is carried out when a~~ predetermined maximum total wear of the tool [[2]] has been reached.

14. (Currently Amended) The method according to ~~any one of claims~~ claim 1 [[ to 13]], ~~characterized in that upon change of the tool (2) further comprising continuing the machining operation with a replacement tool by positioning said replacement tool at substantially is continued at the same place that said rotating tool occupied prior to said step of the preceding interruption interrupting and the continuous continuing the feed of the replacement tool against the workpiece using begins with a smaller value, so that such that the replacement tool~~ [[2]] is not yet in engagement with the workpiece surface (4) at the beginning of the [[feed]] continued machining operation.

15. (Currently Amended) The method according to ~~any one of claims~~ claim 1 [[ to 13]], ~~characterized in that further comprising, after the wear measurement has been~~ [[per]]formed, ~~on the workpiece (2), the feed is carried out continuing the machining operation at a slightly superelevated level for compensating to compensate for errors caused by~~ [[the]] wear on the tool and [[so as]] to compensate for elastic deformations of the tool [[2]].

16. (Currently Amended) The method according to claim 15, ~~characterized in that the additional feed is also carried out in~~ wherein the machining operation is carried out in at least one of a lateral direction [[and/]] or in a normal direction relative to [[the]] a surface [[4]] of the workpiece (1) for compensating in order to compensate for any lateral deviations of the tool [[2]].

17. (Currently Amended) The method according to ~~any one of claims~~ claim 1 [[ to 16]], ~~characterized in that the continuous feed wherein the machining operation is carried out in a linear fashion.~~

*Application No.: NOT YET ASSIGNED*

18. (Currently Amended) The method according to ~~any one of claims~~ claim 1[[ to 16]], ~~characterized in that the continuous feed~~ wherein the machining operation is carried out in a non-linear fashion.

19. (New) A method for machining a workpiece by means of a rotating tool provided with at least one cutting edge, in which method a machining operation is interrupted at predetermined time intervals, the tool is moved away from the workpiece , and a wear measurement is subsequently carried out on the tool , comprising:

(a) returning the tool, after conducting a wear measurement thereof, into a feed position assumed by the tool before an interruption of a machining operation and within a subsequent period of time after said returning step;

(b) continuously feeding said tool into contact with a workpiece in a manner that compensates for the wear measured.

20. (New) The method of claim 19, wherein said step of continuously feeding is determined by assessing a machining path as it relates to at least one of a speed of rotation of said tool and a period of time that the tool has been in contact with the workpiece.